

ATTACHMENT 2
EMBLEM SPECIFICATIONS

1. SMALL BLM EMBLEM – See Drawing #1 for Embroidery Specification.

A. GENERAL STANDARDS

See attached drawing #1 for overall size, shape, colors, layout and detail. All embroidery detail shall be the size, width, height, and weight as indicated.

B. DIMENSIONS

The emblem shall measure approximately 2-5/8" at the highest point by 2-1/2" at the widest point.

C. BACKGROUND MATERIAL

1. The background material shall be of factory first quality manufacture. The material shall be color fast, 6-3/4 to 7 ½ oz/yd., 65/35 polyester/cotton, 2/1 or 3/1 construction, cured and preshrunk (resin impregnated and oven cured). Tensile strength shall be in the range of 170/120, with an absolute minimum of 150/110. Mill seconds will not be acceptable.

2. An open weave buckram or a 3 mil thick plastic film (polyvinyl chloride or polyethylene) shall be spanned on the loom behind the background material before embroidery.

3. Color background material shall be similar to Heraldic yarn cable no. 67131 Army Green HAF solid stitched.

D. EMBROIDERING

1. Emblems shall be machine embroidered.

2. The solid-stitched background field shall be a running stitch field. A batt (or loose) stitched field will not be acceptable. There must be no visible "corduroy" effect. A "corduroy" type field is one in which the overall appearance consists of a regular succession of stitches and spaces, similar to the regular rises and falls in corduroy fabric, and is not acceptable.

3. Thread color names and numbers are the applicable standard sample for shade and are contained in the DOD Standard Color Card of Official Standardized Shades for Heraldic yarns for Embroidery and Ribbons. This Color Card is obtainable from the Color Association of the United States, Inc., 343 Lexington Ave., New York, NY 10016 (Tel. No. 212-683-9531).

4. Thread colors and deniers, along with the necessary number of color changes are identified as follows, and shall closely match the following Heraldic yarn color shades:

<u>Description</u>	<u>Cable Name</u>	<u>Cable No</u>	<u>Rayon</u>	<u>Polyester</u>
Sky	Forget Me Not HBS	67168	150/2	135/2
Mountain and Stream	Ostende Blue HBU	67170	150/2	135/2
Grass (Fields)	Mint Leaf HCL	67186	150/2	135/2
Snow	White HA	67101	150/2	135/2
FoothillsProphet Green	HCM	67187	150/2	135/2
Tree, Borders, Letters	Army Green HAF	67131	150/2	135/2
"Bureau of Land Mgt"	Army Green HAF	67131	150/2	135/2

5. Thread shall be rayon or polyester yarn, finest quality, continuous filament, and colorfast, in the deniers specified above.

6. Emblems shall contain not less than 3,700 stitches, not including the stitching in the over locked merrow edge. Besides the customary and usual understanding of an embroidery "stitch" to mean that length of thread between two

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needle entry points on an embroidered emblem, one stitch is further identified as that space on a schiffli embroidery program roll between two transport holes. One meter equaling one hundred stitches.

7. Stitch scale shall be of sufficient density as to preclude the "bleeding" (or see through) of the background material, and uneven matting (register) of color elements. There shall be sufficient underlay stitching to give a full three-dimensional, high-relief appearance to the emblems. No stitch may be greater than ten millimeters in length.

8. Double thread or any thread of different deniers of plies will not be permitted in any part of the emblems. Single thread stitching in the deniers and plies above shall be used throughout.

E. OVER LOCKED MERROW EDGE

1. Over locked merrow edges shall be applied to the emblems after the loom operation. Running stitches, supported by zig-zag stitches shall be applied under the area covered by the merrow edge, to prevent the merrow edge from pulling away from the base material. Straight line running stitches alone will not serve this purpose.

2. The top (front) portion of the merrow edge shall consist of either of the following:

- a. five 150/2 denier rayon or 135/2 denier polyester threads, or
- b. one 300/4 denier rayon or polyester "floss" thread, or
- c. one 600/3 denier rayon or polyester "floss" thread.

The underneath (backside) of the merrow edge shall consist of two 20/2 "cotton count" cotton threads or the equivalent in "polycore."

3. Edge density shall be at least twenty-two (22) threads per inch for the 150/2 and 135/2 denier threads, or twenty-five (25) threads per inch for the 300/4 "floss" thread or twenty-two (22) threads per inch for the 600/3 "floss" thread.

4. The over locked merrow edges shall be overrun a minimum of 3/8", and the end threads shall be pulled through the entire length of the overrun to prevent raveling. Threads shall not be pasted down, taped, knotted, tied, fused into, or onto, or under the plastic film backing; cut off, tucked under, or chained off without first being pulled through the entire length of the overrun.

5. The color of the over locked merrow edges shall closely match Heraldic yarn cable no. 67131, Army Green HAF.

F. FINISHING

1. A nine or ten mil polyvinyl chloride or polyethylene film sheet shall be bonded to the reverse side of the emblem after embroidery and before die cutting. Sufficient heat shall be applied to cause the film to melt, and bond to the fabric and bobbin threads. The film shall be capable of withstanding temperatures in excess of 300 degrees F. in an alkaline solution, and shall be non-soluble in all commercial laundering fluids. The plastic film shall not be chlorine retentive, nor emit toxic gasses when subjected to heat. The film shall not stiffen nor crack in any greasy white commercial work formula.

2. The film shall be applied in such a manner as to generally maintain the three-dimensionality or high-relief of the embroidery. The film sheet shall be applied to the span of loomed emblems after embroidery and prior to die cutting.

3. Polyvinyl chloride and polyethylene are incompatible and shall not be used together on any emblem (see D.2 above).

4. The film backing shall completely coat the reverse (back) side of the emblems.

5. All emblems shall be die cut to the exact shape and geometry of the design.

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G. WORKMANSHIP

1. There shall be no distortion of the exterior shape of the emblems.
2. The finished emblem shall show a clear cut execution and shall be clean; neatly made, with full tension on all threads. Threads shall not buckle nor show underlay stitching when emblems are bent.
3. The finished product shall show no broken stitches, nor may any stitches be out of proper alignment.
4. The emblem shall not curl and shall appear flat and smooth.
5. The finished product shall conform to the quality standard of this specification in all characteristics.

2. **LARGE BLM EMBLEM – Drawing #2.**

A. GENERAL STANDARDS

See attached drawing #2 for overall size, shape, colors, layout and detail. All embroidery detail shall be the size, width, height, and weight as indicated.

B. DIMENSIONS

The emblem shall measure 3-3/4 inches at the highest point by 4 inches at the widest point. **The DOI Rocker arch shall measure 3/4 inches at the highest point and 5 inches at the widest point.**

C. BACKGROUND MATERIAL

1. The background material shall be of factory first quality manufacture. The material shall be colorfast, 6-3/4 to 7-1/2 oz./yd., 65/35 polyester/cotton, 2/1 or 3/1 construction, cured and preshrunk (resin impregnated and oven cured). Tensile strength shall be in the range of 170/120, with an absolute minimum of 150/110. Mill seconds will not be acceptable. Offeror shall indicate in the proposal the name of the background material and the manufacturer.
2. An open weave buckram or a 3 mil thick plastic film (polyvinyl chloride or polyethylene) shall be spanned on the loom behind the background material before embroidery.
3. Color background material shall be similar to Heraldic yarn cable no. 67131 Army Green HAF solid stitched.

D. EMBROIDERING

1. Emblems shall be machine embroidered on embroidery machines with automats, and shall not be produced on multi-head equipment.
2. The solid-stitched background field shall be a running stitch field. A blatt (or loose) stitched field will not be acceptable. There shall be no visible "corduroy" effect. A "corduroy" type field is one in which the overall appearance consists of a regular succession of stitches and spaces, similar to the regular rises and falls in corduroy fabric, and is not acceptable.
3. Thread color names and numbers are the applicable standard sample for shade and are contained in the DOD Standard Color Card of Official Standardized Shades for Heraldic Yarns for Embroidery and Ribbons. This Color Card is obtainable from the Color Association of the United States, Inc., 343 Lexington Ave., New York, NY 10016 (Tel. No. 212-683-9531).
4. Thread colors and deniers, along with the necessary number of color changes are identified as follows, and shall closely match the following Heraldic yarn color shades:

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<u>Description</u>	<u>Cable Name</u>	<u>Cable No.</u>	<u>Rayon</u>	<u>Polyester</u>
Sky	Forget Me Not HBS	67168	150/2	135/2
Mountain and Stream	Ostende Blue HBU	67170	150/2	135/2
Grass (Fields)	Mint Leaf HCL	67186	150/2	135/2
Snow	White HA	67101	150/2	135/2
Foothills	Prophet Green HCM	67187	150/2	135/2
Tree, Borders, Letters	Army Green HAF	67131	150/2	135/2
"Bureau of Land Mgt"	Army Green HAF	67131	150/2	135/2

5. Thread shall be rayon or polyester yarn, finest quality, continuous filament, and colorfast, in the deniers specified above.

6. Emblems shall contain not less than 6,750 stitches for triangle and not less than 3,350 stitches for the arch, not including the stitching in the over locked merrow edge. Besides the customary and usual understanding of an embroidery "stitch" to mean that length of thread between two needle entry points on an embroidered emblem, one stitch is further identified as that space on a schiffli embroidery program roll between two transport holes. One meter equaling one hundred stitches.

7. Stitch scale shall be of sufficient density as to preclude the "bleeding" (or see through) of the background material, and uneven matting (register) of color elements. There shall be sufficient underlay stitching to give a full three-dimensional, high-relief appearance to the emblems. No stitch may be greater than ten millimeters in length.

8. Double thread or any thread of different deniers of plies will not be permitted in any part of the emblems. Single thread stitching in the deniers and plies above shall be used throughout.

E. OVER LOCKED MERROW EDGE

1. Over locked merrow edges shall be applied to the emblems after the loom operation. Running stitches, supported by zig-zag stitches shall be applied under the area covered by the merrow edge, to prevent the merrow edge from pulling away from the base material. Straight line running stitches alone will not serve this purpose.

2. The top (front) portion of the merrow edge shall consist of either of the following:

- a. five 150/2 denier rayon or 135/2 denier polyester threads, or
- b. one 300/4 denier rayon or polyester "floss" thread, or
- c. one 600/3 denier rayon or polyester "floss" thread.

The underneath (backside) of the merrow edge shall consist of two 20/2 "cotton count" cotton threads or the equivalent in "polycore."

3. Edge density shall be at least twenty-two (22) threads per inch for the 150/2 and 135/2 denier threads, or twenty-five (25) threads per inch for the 300/4 "floss" thread or twenty-two (22) threads per inch for the 600/3 "floss" thread.

4. The over locked merrow edges shall be overrun a minimum of 3/8", and the end threads shall be pulled through the entire length of the overrun to prevent raveling. Threads shall not be pasted down, taped, knotted, tied, fused into, or onto, or under the plastic film backing; cut off, tucked under, or chained off without first being pulled

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through the entire length of the overrun.

5. The color of the over locked merrow edges shall closely match Heraldic yarn cable no. 67131, Army Green HAF.

F. FINISHING

1. A nine or ten mil polyvinyl chloride or polyethylene film sheet shall be bonded to the reverse side of the emblem after embroidery and before die cutting. Sufficient heat shall be applied to cause the film to melt, and bond to the fabric and bobbin threads. The film shall be capable of withstanding temperatures in excess of 300 degrees F. in an alkaline solution, and shall be non-soluble in all commercial laundering fluids. The plastic film shall not be chlorine retentive, nor emit toxic gasses when subjected to heat. The film shall not stiffen nor crack in any greasy white commercial work formula.

2. The film shall be applied in such a manner as to generally maintain the three-dimensionality or high-relief of the embroidery. The film sheet shall be applied to the span of loomed emblems after embroidery and prior to die cutting.

3. Polyvinyl chloride and polyethylene are incompatible and shall not be used together on any emblem (see D.2 above).

4. The film backing shall completely coat the reverse (back) side of the emblems.

5. All emblems shall be die cut to the exact shape and geometry of the design.

G. WORKMANSHIP

1. There shall be no distortion of the exterior shape of the emblems.

2. The finished emblem shall show a clear cut execution and shall be clean; neatly made, with full tension on all threads. Threads shall not buckle nor show underlay stitching when emblems are bent.

3. The finished product shall show no broken stitches, nor may any stitches be out of proper alignment.

4. The emblem shall not curl and shall appear flat and smooth.

5. The finished product shall conform to the quality standard of this specification in all characteristics.

3. LARGE VOLUNTEER EMBLEM

A. GENERAL STANDARDS

See attached drawing #3 for overall size and shape. All embroidery detail shall be the size, width, height, and weight as indicated.

B. DIMENSIONS

The emblem shall measure 3-3/4 inches at the highest point by 4 inches at the widest point.

C. BACKGROUND MATERIAL

1. The background material shall be of factory first quality manufacture. The material shall be colorfast, 6-3/4 to 7-1/2 oz./yd., 65/35 polyester/cotton, 2/1 or 3/1 construction, cured and preshrunk (resin impregnated and oven cured). Tensile strength shall be in the range of 170/120, with an absolute minimum of 150/110. Mill seconds will not be acceptable. Offeror shall indicate in the proposal the name of the background material and the manufacturer.

2. An open weave buckram or a 3 mil thick plastic film (polyvinyl chloride or polyethylene) shall be spanned on the loom behind the background material before embroidery.

3. Color background material shall be similar to Heraldic yarn cable no. 67131 Army Green HAF solid stitched (see

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E.2 below).

D. EMBROIDERING

1. Emblems shall be machine embroidered on embroidery machines with automats, and shall not be produced on multi-head equipment.
2. The solid-stitched background field shall be a running stitch field. A blatt (or loose) stitched field will not be acceptable. There shall be no visible "corduroy" effect. A "corduroy" type field is one in which the overall appearance consists of a regular succession of stitches and spaces, similar to the regular rises and falls in corduroy fabric, and is not acceptable.
3. Thread color names and numbers are the applicable standard sample for shade and are contained in the DOD Standard Color Card of Official Standardized Shades for Heraldic Yarns for Embroidery and Ribbons. This Color Card is obtainable from the Color Association of the United States, Inc., 343 Lexington Ave., New York, NY 10016 (Tel. No. 212-683-9531).
4. Thread colors and deniers, along with the necessary number of color changes are identified as follows, and shall closely match the following Heraldic yarn color shades:

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<u>Description</u>	<u>Cable Name</u>	<u>Cable No.</u>	<u>Rayon</u>	<u>Polyester</u>
Sky	Forget Me Not HBS	67168	150/2	135/2
Mountain and Stream	Ostende Blue HBU	67170	150/2	135/2
Grass (Fields)	Mint Leaf HCL	67186	150/2	135/2
Snow	White HA	67101	150/2	135/2
Foothills	Prophet Green HCM	67187	150/2	135/2
Tree, Borders, Letters	Army Green HAF	67131	150/2	135/2
"Bureau of Land Mgt"	Army Green HAF	67131	150/2	135/2

5. Thread shall be rayon or polyester yarn, finest quality, continuous filament, and colorfast, in the deniers specified above.
6. Emblems shall contain not less than 6,750 stitches for triangle and not less than 3,350 stitches for the arch, not including the stitching in the over locked merrow edge. Besides the customary and usual understanding of an embroidery "stitch" to mean that length of thread between two needle entry points on an embroidered emblem, one stitch is further identified as that space on a schiffli embroidery program roll between two transport holes. One meter equaling one hundred stitches.
7. Stitch scale shall be of sufficient density as to preclude the "bleeding" (or see through) of the background material, and uneven matting (register) of color elements. There shall be sufficient underlay stitching to give a full three-dimensional, high-relief appearance to the emblems. No stitch may be greater than ten millimeters in length.
8. Double thread or any thread of different deniers of plies will not be permitted in any part of the emblems. Single thread stitching in the deniers and plies above shall be used throughout.

E. OVER LOCKED MERROW EDGE

1. Over locked merrow edges shall be applied to the emblems after the loom operation. Running stitches, supported by zig-zag stitches shall be applied under the area covered by the merrow edge, to prevent the merrow edge from

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pulling away from the base material. Straight line running stitches alone will not serve this purpose.

2. The top (front) portion of the merrow edge shall consist of either of the following:

- a. five 150/2 denier rayon or 135/2 denier polyester threads, or
- b. one 300/4 denier rayon or polyester "floss" thread, or
- c. one 600/3 denier rayon or polyester "floss" thread.

The underneath (backside) of the merrow edge shall consist of two 20/2 "cotton count" cotton threads or the equivalent in "polycore."

3. Edge density shall be at least twenty-two (22) threads per inch for the 150/2 and 135/2 denier threads, or twenty-five (25) threads per inch for the 300/4 "floss" thread or twenty-two (22) threads per inch for the 600/3 "floss" thread.

4. The over locked merrow edges shall be overrun a minimum of 3/8", and the end threads shall be pulled through the entire length of the overrun to prevent raveling. Threads shall not be pasted down, taped, knotted, tied, fused into, or onto, or under the plastic film backing; cut off, tucked under, or chained off without first being pulled through the entire length of the overrun.

5. The color of the over locked merrow edges shall closely match Heraldic yarn cable no. 67131, Army Green HAF.

F. FINISHING

1. A nine or ten mil polyvinyl chloride or polyethylene film sheet shall be bonded to the reverse side of the emblem after embroidery and before die cutting. Sufficient heat shall be applied to cause the film to melt, and bond to the fabric and bobbin threads. The film shall be capable of withstanding temperatures in excess of 300 degrees F. in an alkaline solution, and shall be non-soluble in all commercial laundering fluids. The plastic film shall not be chlorine retentive, nor emit toxic gasses when subjected to heat. The film shall not stiffen nor crack in any greasy white commercial work formula.

2. The film shall be applied in such a manner as to generally maintain the three-dimensionality or high-relief of the embroidery. The film sheet shall be applied to the span of loomed emblems after embroidery and prior to die cutting.

3. Polyvinyl chloride and polyethylene are incompatible and shall not be used together on any emblem.

4. The film backing shall completely coat the reverse (back) side of the emblems.

5. All emblems shall be die cut to the exact shape and geometry of the design.

G. WORKMANSHIP

1. There shall be no distortion of the exterior shape of the emblems.

2. The finished emblem shall show a clear cut execution and shall be clean; neatly made, with full tension on all threads. Threads shall not buckle nor show underlay stitching when emblems are bent.

3. The finished product shall show no broken stitches, nor may any stitches be out of proper alignment.

4. The emblem shall not curl and shall appear flat and smooth.

5. The finished product shall conform to the quality standard of this specification in all characteristics.